

## CHAPTER 1 – INTRODUCTION

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### 1.1 OVERVIEW

This final environmental impact statement and proposed resource management plan amendments (EIS) document has been prepared to analyze and disclose the potential effects of the proposed SunZia Southwest Transmission Project (Project). The Project would include two 500-kilovolt (kV) transmission lines and ancillary facilities that would be located on federal, state, and private lands between central New Mexico and central Arizona. SunZia Transmission, LLC (Applicant, or SunZia) has submitted an application for right-of-way to construct, operate, and maintain the Project on public land administered by the Bureau of Land Management (BLM).

Consideration of this right-of-way application is a major federal action requiring compliance with the National Environmental Policy Act of 1969 (NEPA). The BLM New Mexico State Office, as lead federal agency for this EIS, will decide whether or not to grant right-of-way for the Project based on the analyses in this EIS and on the BLM's authority to grant right-of-way on public land as established by Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 United States Code [USC] 1761-1771).

Cooperating agencies that contributed to the preparation of this EIS include the U.S. Army Corps of Engineers (USACE); Department of the Army, Fort Bliss; Department of the Army, White Sands Missile Range (WSMR); U.S. Air Force, Holloman Air Force Base (AFB); U.S. Fish and Wildlife Service (USFWS); U.S. National Park Service (NPS); Department of Defense (DOD) Siting Clearinghouse, Office of the Deputy Under Secretary (Installations and Environment); New Mexico State Land Office (NMSLO); New Mexico Spaceport Authority; Arizona State Land Department (ASLD); Arizona Game and Fish Department (AZGFD); Arizona Department of Transportation (ADOT); Department of the Army, Fort Huachuca; and Bureau of Indian Affairs (BIA).

The EIS includes the following documents:

- Front matter, Executive Summary, chapters 1–5, References, Glossary, and Index
- Appendices A–M (separate volume)
- Map Volume

Following the publication of the Draft EIS (May 2012), comments were received by the BLM from agencies and the public as noted in Section 1.5. Those comments, along with the BLM's responses, are summarized in Chapter 5 of this Final EIS and are included in their entirety in Appendix J. Revisions and modifications to the EIS were made, including responses to substantive comments received, and are indicated by a vertical black line in the margin of this document.

### 1.2 PROJECT DESCRIPTION AND LOCATION

The proposed Project would include two new, single-circuit 500 kV transmission lines located within a right-of-way up to 1,000 feet wide. The approximately 500-mile-long transmission line

route would originate at a new substation (SunZia East) in Lincoln County, New Mexico, and terminate at the Pinal Central Substation in Pinal County, Arizona. The Project may be located within Lincoln, Socorro, Sierra, Luna, Grant, Hidalgo, and/or Torrance counties in New Mexico; and Graham, Greenlee, Cochise, Pinal, and/or Pima counties in Arizona (Figure 1-1).

The Project would require new rights-of-way on federal, state, and private lands for the transmission lines; rights-of-way for new roads to access the transmission facilities may be required outside the transmission right-of-way. The Applicant applied for a lease term from the BLM for 50 years, and is evaluating options for a lease term of 50 years or greater on state and private lands. Typically, the right-of-way width would be approximately 400 feet, in order to accommodate a separation of 200 feet between the two transmission lines, but could be up to 1,000 feet wide in areas where terrain poses engineering or construction constraints. In other constrained areas, the right-of-way width could be less than 400 feet. Based on a typical span of 1,400 feet, three to four transmission line structures per mile would be required for each of the two lines; with typical structure heights of 135 feet, ranging from 100 to 170 feet. Project description details and design features are included in Chapter 2, Section 2.4.

The proposed Project would include the construction of the SunZia East Substation at the Project's eastern terminus in Lincoln County, and up to three intermediate substations on private or state lands, as follows:

- Midpoint Substation<sup>1</sup>, located in Luna County, New Mexico
- Lordsburg Substation, located in Hidalgo County, New Mexico
- Willow-500 kV Substation, located in Graham County, Arizona

The general locations of the proposed substation sites are indicated on the study area map (Figure 1-1). These substations would provide local utilities and load centers with access to the energy transmitted on the lines. Other intermediate substations may also be considered. The Pinal Central Substation, at the Project's western terminus, has already received its regulatory permits and approvals and will be constructed by Salt River Project (SRP) and other entities.

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<sup>1</sup> Midpoint Substation may also be referred to as SunZia South in other planning documents.

# SUNZIA SOUTHWEST TRANSMISSION PROJECT

## Project Features

-  Study Area
-  Proposed SunZia 500 kV Substation Site
-  Other 500 kV Substation

## General Reference Features

-  City
-  State Highway
-  U.S. Highway
-  Interstate
-  Lake/Reservoir

## Land Ownership

-  Bureau of Land Management
-  U.S. Department of Defense
-  McGregor Range Withdrawal
-  National Park Service
-  U.S. Forest Service
-  U.S. Fish and Wildlife Service
-  U.S. Bureau of Reclamation
-  Federal (Other)
-  Indian Reservation
-  State
-  Private/Other

## Sources

Arizona Bureau of Land Management 2010  
 Arizona State Land Department and ALRIS 2010  
 New Mexico Bureau of Land Management 2009  
 ESRI StreetMap 2010  
 EPG, Inc. 2010

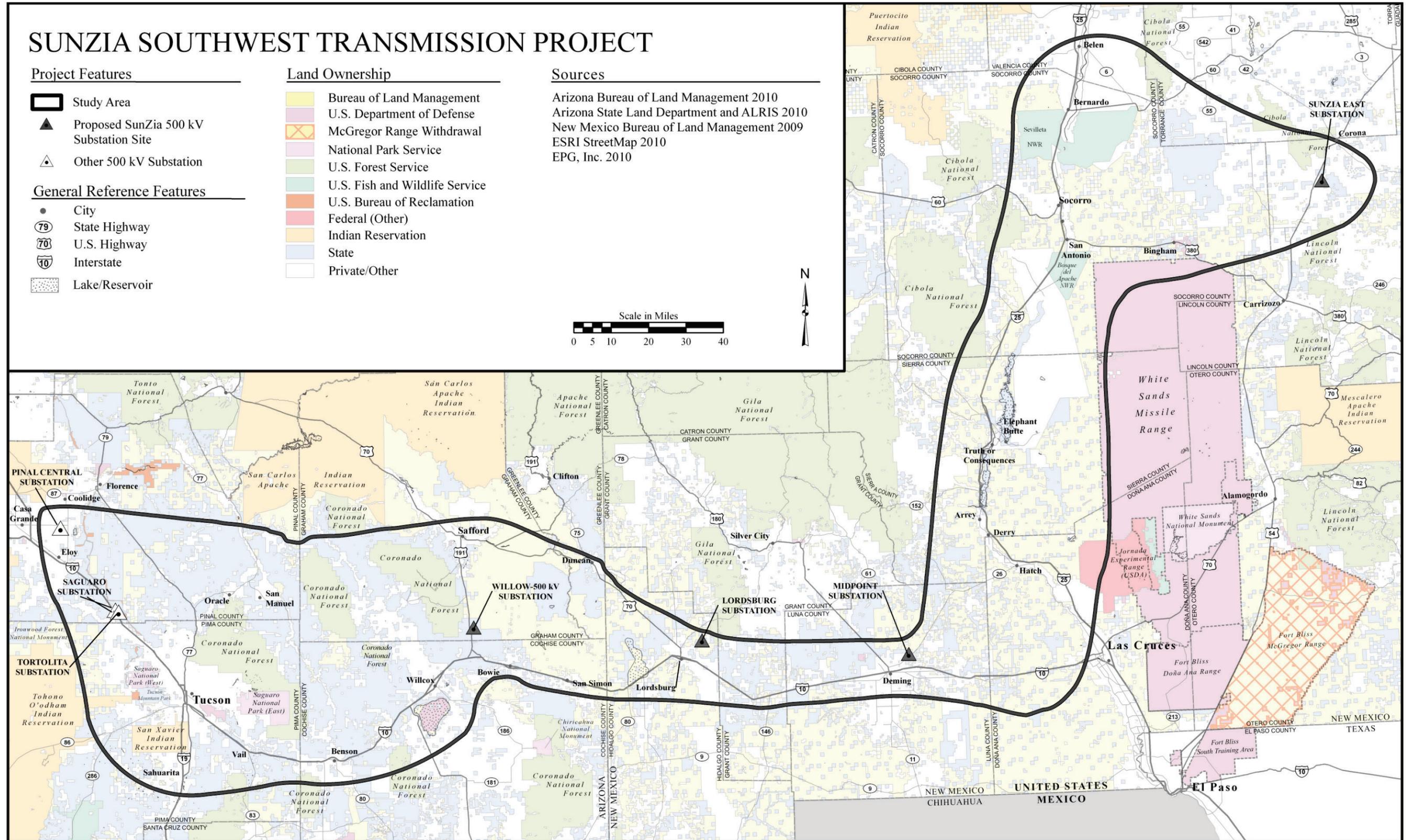


Figure 1-1. Study Area

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At least one of the two 500 kV transmission lines would be constructed and operated as an alternating current (AC) facility; the other transmission line could be either an AC or direct current (DC) facility. The sequence of whether the first line will be constructed and operated as a DC facility will depend on the power transfer requests made on the Project by SunZia's transmission service customers. Depending on the configuration, the Project could provide up to 4,500 megawatts (MW) of additional transfer capability on the regional electrical grid<sup>1</sup>.

### 1.3 BLM'S PURPOSE AND NEED

The BLM's purpose and need for the proposed Project is established by regulatory obligations and directives, and current energy development trends. The purpose and need is used to formulate a reasonable range of alternatives to be considered in the EIS. The need for the BLM's proposed action arises from the FLPMA, which establishes a multiple use mandate for management of federal lands, including energy generation and transmission facilities as outlined in Title V of the FLPMA. The BLM's action in considering the Applicant's right-of-way application is provided under the authority of the Secretary of the Interior to "grant, issue, or renew rights-of-way...for generation, transmission, and distribution of electric energy" (43 Code of Federal Regulations [CFR] 2800). Specifically, the need for the BLM's proposed action is established by the BLM's responsibility under FLPMA to respond to SunZia's application for a new utility right-of-way.

Pursuant to 43 CFR 2801.2, it is the BLM's objective to grant rights-of-way and to control their use on public lands in a manner that: (a) protects the natural resources associated with public lands and adjacent lands, whether private or administered by a government entity; (b) prevents unnecessary or undue degradation to public lands; (c) promotes the use of rights-of-way in common, considering engineering and technological compatibility, national security, and land use plans; and (d) coordinates, to the fullest extent possible, all BLM actions under the regulations in this part with state and local governments, interested individuals, and appropriate quasi-public entities.

Government and industry experts have long recognized the need for the transmission siting and permitting process to better keep pace with the necessary infrastructure upgrades associated with projected development and electrical load growth. The Energy Policy Act of 2005 (EPAct) recognizes the disparity between energy supply and demand and the need for additional transfer capability, and establishes a number of associated agency directives and deadlines. The EPAct addresses the need for transmission facilities, through agency directives, to (1) establish designated energy right-of-way corridors on federal land (sometimes now referred to as Section 368 corridors), via interagency collaboration; (2) ensure ongoing efforts to identify and designate additional corridors, as needed; (3) expedite applications to construct or modify transmission facilities; (4) identify areas of transmission congestion; and (5) amend relevant land use plans and resource management plans (RMP) to include new and existing energy right-of-way corridors.

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<sup>1</sup> A 500 kV AC transmission line would provide approximately 1,500 MW of transfer capability; a 500 kV DC line would provide approximately 3,000 MW.

The need for upgraded infrastructure to carry renewable and traditional energy also has been a focus of recent economic stimulus legislation and debate. As President Obama discussed the proposed American Recovery and Reinvestment Plan that was signed into law<sup>1</sup>, he stated that “to accelerate the creation of a clean energy economy, we will double our capacity to generate alternative sources of energy like wind, solar, and biofuels over the next three years” [and build] “transmission lines to convey this new energy from coast to coast” (Obama 2009). The Renewable Energy Order (Secretarial Order 3285A [Salazar 2010])—which makes the production, development, and delivery of renewable energy a top priority—along with the energy goals of the EPAct, supports the need for the Project because its implementation would encourage the development of additional renewable generation sources. The BLM recognizes the need for upgraded and new electricity transmission and distribution facilities to improve reliability, relieve congestion, and enhance the capability of the national grid to deliver electricity, as directed in the EPAct.

The BLM must consider existing RMPs in the decision to issue a right-of-way grant, in accordance with 43 CFR Part 1610.0-5(b). RMPs allocate public land resource use and establish management objectives (applicable RMPs are listed in Chapter 2, Table 2-16). Portions of the proposed transmission line alternatives are not in conformance with several RMPs; therefore, amendments to these plans are analyzed as part of the route alternatives. To the extent practicable and consistent with the laws governing the administration of public lands, the BLM must coordinate the land use inventory, planning, and management activities with other federal departments and agencies, and with the states and local governments, in accordance with the FLPMA (Public Law [PL] 94–579, Section 202 (c) 9).

#### **1.4 APPLICANT’S OBJECTIVES**

The Applicant’s objectives are to increase transfer capability, thereby relieving existing transmission congestion and allowing additional electricity to be generated and transported to western power markets and load centers in the Desert Southwest. The Project would be collocated with areas of undeveloped renewable resource potential to provide a path for energy delivery, and would provide power to help meet growing demand in the western United States and enhance domestic energy security.

The Applicant group comprises load-serving utilities and independent developers. The Project would assist load-serving utilities in meeting the requirements to address energy delivery obligations and meet state renewable portfolio standards (RPS). The independent developers’ purpose for the Project is to create a market opportunity to satisfy transmission needs that have been identified at local, regional, and national levels.

In 2009, the U.S. Department of Energy (DOE) studied transmission corridors to identify areas of congestion, including areas where development of new renewable generation resources was inhibited by insufficient transmission facilities or transfer capability. The report identified the key transmission path in southern New Mexico as one of the most heavily used and congested transmission paths in the West (DOE 2009).

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<sup>1</sup> American Recovery and Reinvestment Act of 2009 (26 USC 1)

New Mexico and Arizona are characterized as regional power exporting areas, due to the availability of power from renewable resources in excess of the power consumption in each state. The DOE reported that the transmission path in southern New Mexico was highly congested in 2006, and remained highly congested at publication of their National Electric Congestion Study in 2009 (*ibid*). Power flows and congestion would be expected to increase with the development of additional resources and a lack of additional transmission facilities. This congestion is anticipated with the implementation of RPS, which many states have established to help promote the development of renewable energy by requiring electricity providers to obtain a minimum percentage of their power from renewable energy resources by a certain date. Within the Desert Southwest, Arizona’s RPS is 15 percent by 2025; California’s RPS is 20 percent by 2010 and 33 percent by 2020; Nevada’s RPS is 20 percent by 2015; and New Mexico’s RPS is 20 percent by 2020 (California Public Utilities Commission [CPUC] 2011; DOE 2011). Table 1-1 provides the forecast of additional energy that would be required to meet the RPS in these states (identified as Net Short), and the transfer capability that would be needed if these energy standards were to be met entirely by solar or wind projects for the forecast years 2015, 2020, and 2025, respectively.

<b>Table 1-1. Renewable Energy and Transfer Capability Needed to Meet State RPS</b>				
<b>State</b>	<b>RPS (%)</b>	<b>Forecast “Net Short” Renewable Energy (GWh<sup>1,2</sup>)</b>	<b>Necessary Transfer Capability (100% of “Net Short” Developed as Solar [MW<sup>3</sup>])</b>	<b>Necessary Transfer Capability (100% of “Net Short” Developed as Wind [MW<sup>4</sup>])</b>
<b>2015</b>				
<b>Arizona</b>	5	6	3	2
<b>California</b>	25	26,066	11,902	8,502
<b>Nevada</b>	20	93	42	30
<b>New Mexico</b>	15	2,122	969	692
<b>2015 Total</b>		<b>28,287</b>	<b>12,916</b>	<b>9,226</b>
<b>2020</b>				
<b>Arizona</b>	10	791	361	258
<b>California</b>	33	53,030	24,215	17,296
<b>Nevada</b>	22	1,178	538	384
<b>New Mexico</b>	20	3,655	1,669	1,192
<b>2020 Total</b>		<b>58,654</b>	<b>26,783</b>	<b>19,130</b>
<b>2025</b>				
<b>Arizona</b>	15	4,702	2,147	1,534
<b>California</b>	33	59,048	26,963	19,259
<b>Nevada</b>	25	2,855	1,304	931
<b>New Mexico</b>	20	4,189	1,913	1,366
<b>2025 Total</b>		<b>70,794</b>	<b>32,327</b>	<b>23,090</b>
<sup>1</sup> Based on forecasts of major utilities' retail sales in the indicated year (data obtained in October 2010) <sup>2</sup> On average, major utilities in Arizona, Nevada, and New Mexico account for approximately 85% of total retail sales <sup>3</sup> Assumes average capacity factor of 25% <sup>4</sup> Assumes average capacity factor of 35% Note: Necessary transfer capability could be provided through the existing transmission system, if available, or through new transmission system additions. Source: SunZia 2010				

The DOE report characterizes the need to resolve current transmission congestion as “urgent,” as demonstrated by the large number of both wind and solar projects that have applied for interconnection to the transmission grid, but that cannot be built due to insufficient transfer capability (DOE 2009). The Western Renewable Energy Zone study identified 11,300 MW of potential wind resources near the eastern terminus of the Project and 10,500 MW of solar potential in southeast Arizona and southwest New Mexico, but notes that “lack of cost effective transmission access was, and remains, the greatest impediment to the rapid development” of these resources (Western Governors’ Association [WGA] and DOE 2009). In 2006, the Southwest Area Transmission presented the concept that new 500 kV transmission would be required between southern New Mexico and southern Arizona, to support New Mexico’s potential as an energy exporting state, based on abundant wind and solar potential (SWAT 2006).

The need for increased available transfer capability has been identified at federal, regional, and state levels. New regional transmission lines could facilitate renewable resource development and the distribution of power to load centers throughout the Desert Southwest, helping to meet federal objectives to relieve transmission congestion, increase renewable energy production on public land by 2015 (EPAAct 2005), and meet various state RPS.

The Project is needed to increase available transfer capability in an electrical grid that is currently insufficient to support the development, access, and transport of additional energy-generating resources, including renewable energy, in New Mexico and Arizona. The Applicant submitted an application for a right-of-way from central New Mexico to southeastern Arizona, and thus the purpose and need outlined herein are within that general geographical frame of reference. Federal Energy Regulatory Commission (FERC, or Commission) Order 888 provides that owners of transmission facilities make such services available on the open market. Transmission facility services are to be provided on a nondiscriminatory, comparable basis to others seeking similar services, including ancillary services (as defined by the North American Electric Reliability Corporation [NERC]) such as: scheduling, system control, dispatching, reactive supply, voltage control, frequency response, regulation, energy imbalance, spinning reserve, and supplemental reserve (FERC 2005).

SunZia’s merchant owners, in the Order on Petition for Declaratory Order (May 24, 2011), have been allowed to negotiate how ancillary services are to be provided within its transmission service agreements. SunZia is not obligated to provide firming<sup>1</sup> and other ancillary services, and may provide in its transmission service agreements that the buyer of the transmission service provide other ancillary services. Paragraph 31 of this Order states:

Under the Commission’s policies, transmission providers must offer or provide ancillary services under their Open Access Transmission Tariffs (OATT). However, the Commission has recognized that this may not be practical in some instances, such as when a merchant transmission developer does not own generation and therefore lacks the means to offer or provide generation-based ancillary services. Thus, the Commission has found that to the extent a merchant transmission developer is not in a position to offer or provide ancillary services, it should negotiate in the transmission service agreements it enters into with its customers as to

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<sup>1</sup> The act or process of ensuring that a given amount of energy is available for consumption or transmission at a given moment.

how ancillary services for the project will be supplied. SW Power, ECP SunZia, and Shell WindEnergy commit to do so (135 FERC ¶61169).

The Project would be open to all interconnection requests; however, it is the intent of the Applicant to provide infrastructure to increase transfer capability in areas of potential renewable energy generation. Increasing interstate transfer capability and access to renewable resources is needed to meet federal energy policy objectives, such as the EPAct of 2005, as well as state RPS.

Several proposed generation projects have provided interconnection requests to existing transmission owners (utilities) within the Project area. Table 1-2 summarizes the generation interconnection requests that were in the queue for several local utilities as of September 15, 2011. These interconnection requests include future generation projects that would have an option to connect to the existing transmission system operated by the local utilities, or connect to the Project. This information is representative of the interest to develop generation projects, including primarily renewable energy, within the Project area.

<b>Table 1-2. Summary of Generation Interconnection Requests to Existing Transmission Owners within the Project Area</b>		
<b>Transmission Owner</b>	<b>Total Amount of Proposed Generation (MW)</b>	<b>Type of Generation</b>
El Paso Electric Company	771	Wind and Solar
Public Service Company of New Mexico	5,614	Wind and Solar
Tucson Electric Power	1,250	Wind, Solar, and Natural Gas
Tri-State Generation and Transmission Cooperative	50	Wind and Solar
<b>Total</b>	<b>7,685</b>	

Source: WestConnect 2011  
 Note: Interconnection request queue information gathered on September 15, 2011 from [www.westconnect.com](http://www.westconnect.com) and individual OASIS information for the respective transmission owners. These generators filed requests for interconnection with existing transmission owners with the full knowledge that FERC could and would compel provision of transmission interconnection and service by such transmission owners to requesting generators subject to FERC Order 888.

Pursuant to FERC Order 888, it is noted that the locations of individual proposed projects or transmission line interconnections cannot be identified to third parties by transmission owners.

## **1.5 SCOPING AND PUBLIC INVOLVEMENT**

The EIS process was formally initiated on May 29, 2009, with a publication in the *Federal Register* of the Notice of Intent (NOI) to prepare an EIS. Publication of the NOI also marked the beginning of a 45-day public scoping period, during which time nine public scoping meetings were held. In response to public comments, the Project study area was expanded twice, and additional scoping periods and public meetings were held in October 2009 and April 2010. Overall, approximately 500 people attended the three sets of scoping meetings and approximately 1,400 comment submittals were received. The scoping process is described in

detail in Chapter 5 of this EIS, and in the *SunZia Southwest Transmission Project EIS Scoping Report* (Scoping Report), which is available on the BLM Project website<sup>1</sup>.

The intent of scoping is to identify important issues related to a proposed action and its alternatives. The identification of issues helps agencies to focus their analysis and often facilitates in the development of alternatives. During Project scoping, issues related to engineering and design, land use and recreation, social and economic conditions, and biological, visual, cultural, and earth and water resources were identified and used to locate, refine, and evaluate alternative routes and substation sites. Table 1-3 provides a representation of issues identified during scoping, and indicates where these issues are addressed in the EIS. A complete summary of issues identified during scoping, including those issues that are not addressed in the EIS, is provided in the Project Scoping Report (BLM 2010a).

<b>Table 1-3. Summary of Issues from Scoping</b>	
<b>Issues</b>	<b>Where Addressed in EIS</b>
<b>Purpose and Need</b> <ul style="list-style-type: none"> <li>• BLM’s purpose and need</li> <li>• Applicant’s objectives</li> </ul>	Chapter 1, Sections 1.3, 1.4
<b>Project Engineering and Design</b> <ul style="list-style-type: none"> <li>• Issues with engineering and construction constraints, including construction on mountainous terrain, proximity to gas lines and other hazards, and line burial</li> </ul>	Chapter 2, Section 2.4.12 Chapter 3, Section 3.3 Chapter 4, Section 4.3
<b>Corridor Alignment and Alternatives</b> <ul style="list-style-type: none"> <li>• Concerns regarding routes in and near to the following areas (for various resource concerns): Eloy, San Pedro River Valley, Galiuro Wilderness, Sunset Mountain, Sulphur Springs Valley, Aravaipa Valley/Klondyke, Cluff Ranch, Mt. Graham/Safford, US Route 191 south of Safford, Deming, Bosque del Apache National Wildlife Refuge/San Antonio, and Rio Grande Corridor, WSMR, Fort Bliss, Buffalo Soldier Electronic Proving Ground*</li> </ul>	Chapter 2, Sections 2.2, 2.3 Chapter 3, all Chapter 4, all
<b>Earth and Water Resources</b> <ul style="list-style-type: none"> <li>• Increase of sedimentation in rivers</li> <li>• Potential impacts from soil erosion</li> <li>• Alteration of watersheds and associated habitat and wildlife</li> </ul>	Chapter 3, Sections 3.3, 3.5, 3.6 Chapter 4, Sections 4.3, 4.5, 4.6
<b>Biological Resources</b> <ul style="list-style-type: none"> <li>• Impacts on wildlife habitat, particularly on raptor nesting habitat</li> <li>• Impacts on migratory birds and waterfowl near the Rio Grande corridor, Bosque del Apache National Wildlife Refuge, and San Pedro River</li> <li>• Impacts to Sandhill Cranes through Sulphur Springs</li> <li>• Impacts to Chihuahuan Desert and Nutt Grasslands</li> <li>• Invasive and noxious weed species and mitigation measures</li> <li>• Habitat loss and fragmentation</li> <li>• Wildlife mortality associated with construction activities and vehicle traffic</li> <li>• Creation of avian collision hazards</li> <li>• Increased public access on access roads</li> <li>• Impacts to Aravaipa Canyon and fish (Spikedace and Loach Minnow are</li> </ul>	Chapter 3, Section 3.6 Chapter 4, Section 4.6

<sup>1</sup> [http://www.blm.gov/nm/st/en/prog/more/lands\\_realty/sunzia\\_southwest\\_transmission.html](http://www.blm.gov/nm/st/en/prog/more/lands_realty/sunzia_southwest_transmission.html)

**Table 1-3. Summary of Issues from Scoping**

Issues	Where Addressed in EIS
federally threatened fish located in Aravaipa creek), bird, tortoise, and Bighorn Sheep species that exist in its watershed <ul style="list-style-type: none"> <li>• Impacts to Silvery Minnow in the Rio Grande</li> <li>• Impact on breeding habitat for Southwestern Willow Flycatcher</li> </ul>	
<b>Cultural Resources</b> <ul style="list-style-type: none"> <li>• Potential impacts on cultural resources, including prehistoric and historic sites and districts, historic structures and trails, cemeteries, national parks and monuments, and state parks</li> <li>• Impacts to archaeological sites in San Pedro River Valley, Aravaipa Valley, and along the Rio Grande</li> <li>• Concern regarding San Pedro River Valley as a “low” sensitivity area</li> <li>• Religious significance of Sunset Mountain</li> </ul>	Chapter 3, Section 3.8 Chapter 4, Section 4.8
<b>Tribal Concerns</b> <ul style="list-style-type: none"> <li>• Tribal values, traditional cultural properties</li> <li>• Impacts on tribal ruins, burial grounds, plant gathering, and traditional use areas near Mt. Graham and Safford</li> <li>• Impacts to tribal pueblo ruins along the Rio Grande</li> </ul>	Chapter 3, Section 3.8.4 Chapter 4, Section 4.8
<b>Visual/Scenic Resources</b> <ul style="list-style-type: none"> <li>• Impacts to sensitive viewing areas, including travel routes, National Park and Monument units, recreation areas, residences, and the aesthetic values in San Pedro River Valley, Aravaipa Canyon, Socorro Valley, Picacho Mountains, Coronado National Forest, US Route 191 south of Safford</li> </ul>	Chapter 3, Section 3.9 Chapter 4, Section 4.9
<b>Land Use and Recreation</b> <ul style="list-style-type: none"> <li>• Conflicts with current land use plans</li> <li>• Impacts to wilderness areas (including Bosque del Apache Wilderness Area and Galiuro Mountains) for recreationists and wildlife</li> <li>• Impacts to livestock grazing and ranching</li> <li>• Impacts to property values</li> <li>• Conflicts with increased off-highway vehicle use along construction access roads</li> <li>• Conformance with municipal/county general plans and master plans</li> <li>• Impacts to rangeland infrastructure</li> <li>• Impacts to military training, testing, and the operational readiness of the White Sands Missile Range, Holloman AFB, Fort Bliss, and Fort Huachuca (Buffalo Soldier Electronic Proving Ground)</li> </ul>	Chapter 3, Sections 3.10, 3.11, 3.12 Chapter 4, Sections 4.10, 4.11, 4.12
<b>Social and Economic Conditions</b> <ul style="list-style-type: none"> <li>• Impacts to rural lifestyle and livelihood for ranchers, recreationists, hikers, and photographers, et al.</li> <li>• Impacts to tourism industry and economy along the Rio Grande and Aravaipa Valley and San Pedro River Valley</li> <li>• Job creation and economic activity</li> <li>• Impacts on the desire for people to live in central New Mexico</li> </ul>	Chapter 3, Section 3.13 Chapter 4, Section 4.13
<b>Environmental Justice</b> <ul style="list-style-type: none"> <li>• Impacts to potential environmental justice populations in San Antonio, New Mexico or other areas</li> </ul>	Chapter 3, Section 3.14 Chapter 4, Section 4.14
*also called the Buffalo Soldier Electronic Test Range or BSETR	

After the Draft EIS was completed, the Notice of Availability (NOA) was published in the *Federal Register* by the U.S. Environmental Protection Agency (EPA) on May 15, 2012, and by

the BLM on May 29, 2012, requesting that the public review and comment on the Draft EIS/RMP Amendment. The documents and supporting information were made available for access on the BLM Project website, and printed copies were distributed to BLM and cooperating agency offices, libraries, and individuals who requested copies. Ten open-house meetings were hosted by the BLM in New Mexico and Arizona in June and July of 2012 that allowed the public to learn about the proposed Project, participate in the BLM's decision-making process, and develop substantive written comments. Comments were received by the BLM New Mexico State Office during a 90-day review period that ended on August 22, 2012. Additionally, substantive comments that were received through March 2013 were considered in preparation of the Final EIS. The summary of comments and responses is included in Chapter 5 – Consultation and Coordination.

## **1.6 LEAD AND COOPERATING AGENCIES**

The BLM, through its New Mexico State Office, is the lead federal agency responsible for preparing this EIS and associated analyses. As lead agency, the State Office is responsible for consultations required by Section 7 of the Endangered Species Act of 1973 (ESA), as amended, and Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, and all other relevant federal laws.

The Project area includes lands administered by four BLM offices in New Mexico (Las Cruces District Office, Socorro Field Office, Rio Puerco Field Office, and Roswell Field Office) and two BLM offices in Arizona (Tucson Field Office and Safford Field Office).

Cooperating agencies include those federal, state, or local agencies that have jurisdiction by law and/or special expertise (CFR 40 Section 1508.5). Those with jurisdiction by law can make a decision to approve or deny all or part of the Project based on the analysis in this EIS, while those with special expertise or information will assist in development of the analysis. In April 2009, the BLM sent letters to various federal and state agencies, and tribal governments inviting participation as a cooperating agency in preparation of the EIS. A list of agencies is included in the April 2010 Scoping Report. Fourteen agencies have accepted: USACE; Department of the Army, Fort Bliss; Department of the Army, WSMR; U.S. Air Force, Holloman AFB; USFWS; NPS; DOD Siting Clearinghouse, Office of the Deputy Under Secretary (Installations and Environment); NMSLO; New Mexico Spaceport Authority; ASLD; AZGFD; ADOT; Department of the Army, Fort Huachuca; and the BIA.

## **1.7 GOVERNMENT-TO-GOVERNMENT, TRIBAL CONSULTATION**

In May 2009, the BLM contacted 21 tribes to notify them of the Project, initiate consultation, and invite them to participate as cooperating agencies in preparation of the EIS (see Chapter 5, Section 5.3). Initial consultation meetings were held with the Four Southern Tribes of Arizona (Tohono O'odham Nation, Salt River Pima-Maricopa Indian Community, Gila River Indian Community [GRIC], and Ak-Chin Indian Community); Pueblo of Zuni; Pueblo of Isleta; and the Fort Sill, Mescalero, White Mountain Apache, and San Carlos Apache tribes. With the inclusion of alternatives north of the Gran Quivira unit of Salinas Pueblo Missions National Monument (Gran Quivira), additional tribes were contacted by the BLM in April 2012. In recognition of the special relationship with the United States government, the BLM will continue to consult with

the appropriate tribal governments at an official, executive level (government-to-government); in accordance with the NHPA, Executive Order (EO) 13175, and NEPA. The BLM will continue to provide opportunities for tribal involvement throughout the Project development process. As milestones occur within the Project, the BLM will be providing the tribes additional information and opportunities to participate.

The tribes were notified so that they could review the Draft EIS and provide comments, and subsequent to the release of the Draft EIS, additional consultation meetings were held. The project-specific Programmatic Agreement (PA) for the Project will provide opportunities for the tribes to review and comment on reports and on the Native American Graves Protection and Repatriation Act (NAGPRA) Plan of Action, and offer information about sensitive tribal resources. The Draft PA is provided in Appendix M of this Final EIS. Coordination addresses (1) consistency with tribal plans, as appropriate; and (2) observance of specific planning consultation authorities, including Section 101(d)(6) of the NHPA, American Indian Religious Freedom Act, EO 13007 (Indian Sacred Sites), EO 12898 (Environmental Justice), and Secretarial Order 3206 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the ESA).

## 1.8 MAJOR AUTHORIZING LAWS AND REGULATIONS

The FLPMA is the primary legal basis for authorizing a right-of-way grant on BLM land. This EIS is being prepared by the BLM in compliance with the NEPA; Council on Environmental Quality (CEQ) regulations for implementing the NEPA; FLPMA; and U.S. Department of the Interior (DOI) and BLM policies and manuals, including the BLM NEPA Handbook (BLM 2008a). Other applicable regulations and guidelines are listed in Table 1-4. Note that this list is not all-inclusive.

<b>Law and Regulation</b>	<b>Reference</b>
American Indian Religious Freedom Act of 1978	42 USC 1996
Antiquities Act of 1906	16 USC 431 et seq.
Archaeological Resources Protection Act, as amended	16 USC 470aa et seq.
BLM NEPA Handbook H-1790-1 (2008)	BLM Manual Rel. 1-1710
BLM Planning Handbook H-1601-1 (2005)	BLM Manual Rel. 1-1693
BLM Planning Regulations	43 CFR 1600 et seq.
BLM Right-of-Way Regulations	43 CFR 2800
Canal Act of 1890	43 USC 945
Clean Air Act	42 USC 7401 et seq.
Clean Water Act	33 USC 1251 et seq.
Comprehensive Environmental Response, Compensation, and Liability Act	42 USC 9601-9675
Consultation and Coordination with Indian Tribal Governments	EO 13084
Consultation and Coordination with Indian Tribal Governments	EO 13175
Departmental Responsibilities for Indian Trust Resources	512 DM 2.1
Endangered Species Act	16 USC 1531 et seq.
Environmental Justice	EO 12898
Federal Compliance with Pollution Control Standards	EO 12088

**Table 1-4. Major Federal Authorizing Laws, Regulations, and Guidelines**

Law and Regulation	Reference
Federal Land Policy and Management Act of 1976	USC 1701 et seq.
Floodplain Management	42 USC 4321 EO 11988
Bald and Golden Eagle Protection Act of 1940, as amended	16 USC 668-668c
Indian Sacred Sites	EO 13007
Memorandum for the Heads of Executive Departments and Agencies on Government-to-Government Relations with Native American Tribal Governments of 1994	Signed by President Clinton on April 29, 1994
Migratory Bird Treaty Act	16 USC 703-711; EO 13186
National Environmental Policy Act, Protection and Enhancement of Environmental Quality	42 USC 4321 et seq., CEQ; 40 CFR 1500-1508
National Historic Preservation	EO 11593
National Historic Preservation Act of 1966, as amended	16 USC 470 et seq., 36 CFR 800
National Trails System Act of 1968	USC § 1241 et seq., as amended
Native American Graves Protection and Repatriation Act of 1990	25 USC 3001-30013 et seq., 43 CFR 10
Noise Control Act of 1972, as amended	42 USC 4901 et seq.
Noxious Weeds and Invasive Species	EO 13112
Occupational Safety and Health Act of 1970	29 USC 651 et seq.
Pollution Prevention Act of 1990	42 USC 13101 et seq.
Protection of Wetlands	42 USC 4321 EO 11990
Resource Conservation and Recovery Act	42 USC 6901-6992k
Responsibilities and the Endangered Species Act, Secretarial Order 3206	June 5, 1997
Safe Drinking Water Act of 1974	42 USC 300f et seq.
U.S. DOI, NEPA implementing procedures and proposed revisions	73 FR 200
Wilderness Act of 1964	16 U.S.C. 1131-1136, 78 Stat. 890
DM – Department Manual et seq. – and the following FR – <i>Federal Register</i>	

## 1.9 RELATIONSHIP TO OTHER POLICIES, PLANS, AND PROGRAMS

### 1.9.1 Policies, Plans, and Programs on Federal Lands

Approximately one-third of the Project would be located on BLM-administered public land. Other portions of the Project may be located on federal land managed by the Bureau of Reclamation (BOR), Arizona and New Mexico state trust lands, and private lands. A Land Use License would be required for utility rights-of-way crossing canals managed by the Middle Rio Grande Conservation District and Central Arizona Project (CAP), in concurrence with the BOR as indicated in Section 1.10.2.

While the construction and operation of the BLM preferred alternative would not require rights-of-way across any other federal lands other than BLM and BOR; the policies, plans, and programs of other federal land management agencies have been reviewed with respect to their consistency with the proposed Project. Other federal agencies in proximity to the proposed Project include the NPS, USFWS, U.S. Forest Service (USFS), and the DOD (Departments of Army, Air Force, Marines, Navy, National Guard). Alternative routes have been considered that

would include small portions of right-of-way across DOD land, but the BLM preferred alternative would not require right-of-way across DOD land.

Although rights-of-way for the proposed Project would not be required on federal land managed by agencies other than the BLM and BOR, the impact assessment in this EIS addresses potential direct, indirect, and cumulative impacts to potentially affected agencies' plans, policies, and programs (Chapter 4 – Environmental Consequences). The results of this review indicate that construction and operation of the Project would be consistent with the policies, plans, and programs of the NPS, USFWS, BOR, and USFS.

Planning documents pertaining to military installation policies, plans, and programs were reviewed in consideration of the DOD's future mission and operational needs. These included WSMR, Holloman AFB, Fort Bliss, Fort Huachuca (Buffalo Soldier Electronic Proving Ground [also called the Buffalo Soldier Electronic Test Range, or BSETR]), and Davis-Monthan AFB. The Project would not directly affect any of the existing or planned uses within the boundaries of these military installations and DOD lands; however, the WSMR and BSETR have indicated that the Project could be inconsistent with future plans to conduct testing or training on, or within the airspace above, BLM, state, or private lands. The discussion of impacts to military operations and mitigation is included in Section 4.10.6 of this EIS.

### **1.9.2 BLM Resource Management Plans**

Under the principles of the FLPMA, the BLM manages public land for both multiple use and sustained yield; meaning that both present and future needs are considered in the management of resources. The BLM's plans to achieve these goals are documented in land use plans or RMPs.

Utility corridors are designated as such by federal, state, or county agencies, but are usually determined through coordination between multiple agencies to help ensure continuity of the corridors between different jurisdictions or land ownership. The DOE West-wide Energy Corridors were created by Section 368 of the EPAct, which directs the secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to designate corridors on federal land in 11 western states. Where applicable, West-wide Energy Corridors have been included in RMP amendments. Existing West-wide Energy Corridors and their proximity to the subroutes are described in Appendix E3.

Portions of the Project alternatives follow existing utility corridors established by the Las Cruces BLM Field Office, although BLM utility corridor designations have not been established in other RMP field office planning areas that contain the Project's preferred route or alternative corridors. Where construction and operation of the proposed Project could be inconsistent with BLM plans, RMP amendments have been proposed and are identified in Chapter 2, Section 2.6 of this EIS.

The BLM land use planning documents applicable to the proposed Project are summarized below.

### 1.9.2.1 New Mexico

- *Las Cruces District Office, Mimbres Resource Management Plan* (BLM 1993). This plan was prepared to formally record the BLM's decisions for managing approximately 3 million acres of public land in Doña Ana, Grant, Luna, and Hidalgo counties.<sup>1</sup>
- *Las Cruces District Office, White Sands Resource Area Resource Management Plan* (BLM 1986). This plan established land use decisions, terms, and conditions for guiding and controlling future management actions in Sierra and Otero counties.<sup>2</sup>
- *Rio Puerco (Albuquerque) Resource Management Plan Revision and Environmental Impact Statement* (BLM 1985). This plan was prepared to formally record the BLM's decisions for managing approximately 8.6 million acres of land, including 896,480 acres of public land in Bernalillo, Cibola, Torrance, Valencia, Sandoval, McKinley, and Santa Fe counties.
- *Roswell Field Office, Roswell Resource Management Plan and Record of Decision* (BLM 1997). This plan was prepared to address the management of all uses of approximately 1.5 million acres of public land within Chaves, Lincoln, De Baca, Roosevelt, Curry, Quay, and Guadalupe counties in southeastern and east-central New Mexico.
- *Socorro Field Office, Socorro Resource Management Plan and Record of Decision* (BLM 2010b). This plan was prepared to allocate resources and provide a comprehensive framework for the BLM's management of 1.5 million acres of public land within Socorro and Catron counties.

### 1.9.2.2 Arizona

- *Phoenix, Tucson, and Safford Field Offices, Phoenix Resource Management Plan and Final Environmental Impact Statement* (BLM 1988a). This plan was developed to guide the BLM in its management of the Phoenix Resource Area, which consists of approximately 911,000 acres of public land within two distinct geographic regions of Arizona, and includes portions of Pima and Pinal counties located within the Project study corridors.
- *Gila District Office, Safford District Resource Management Plan and Environmental Impact Statement* (BLM 1991). This plan was prepared to guide the management of 1.4 million acres of public land in the Gila District (southeastern Arizona), including Graham, Greenlee, Cochise, Pinal, Pima, and Gila counties.
- *Safford Field Office, Environmental Assessment/Gila Box Riparian National Conservation Area Management Plan* (BLM 1998a). This plan was prepared for the appropriate management of the Gila Box Riparian Area for a term of 15 years (from 1998). The planning area includes portions of Graham and Greenlee counties.

<sup>1</sup> The TriCounty RMP and Draft EIS was recently completed and, when approved, it will amend the 1993 Mimbres RMP.

<sup>2</sup> The TriCounty RMP and Draft EIS was recently completed and, when approved, it will revise the 1986 White Sands RMP.

- *Tucson Field Office, Muleshoe Ecosystem Management Plan and Environmental Assessment* (BLM 1998b). This plan was prepared to manage the riparian areas and associated aquatic, plant, and animal communities.

### **1.9.3 Local, Regional, and State Policies, Plans, and Programs**

The BLM also identified and reviewed plans from other jurisdictions in New Mexico and Arizona. General and comprehensive plans for potentially affected cities, counties, or other jurisdictions within the Project area were reviewed to identify relevant policies and projected or future land uses (individual plans are listed in Chapter 3, Section 3.10.4). It is anticipated that construction and operation of the Project would be consistent with city or county policies, programs, and comprehensive or general plans that have been identified within the Project area. (Potential inconsistencies with private land use development plans were identified, and impacts to such future land uses have been documented in Section 4.10 of this EIS.)

The Sonoran Desert Conservation Plan (SDCP) and Conservation Lands System (CLS) were integrated with the Pima County Comprehensive Plan in 2001. The SDCP provides the framework for a multiple species conservation plan to support an incidental take permit for species listed under the ESA. The CLS is designed to protect biodiversity and provide land use guidelines consistent with the conservation goal of the SDCP, and policies and strategies under this plan element are designed to have county-wide applicability. The CLS identifies various conservation categories, including Important Riparian Areas, Biological Core Management Areas, and Multiple Use Management Areas. Potential impacts to biological resources and mitigation measures have been identified in Section 4.6 of this EIS. It is anticipated that mitigation measures would be implemented during construction and operation of the Project that would address the policies and programs of the SDCP, by incorporating SDCP objectives and guidelines in the Project's Plan of Development (POD).

In addition to city and county plans, the BLM reviewed the Redington Natural Resource Conservation District (NRCD) Plan (2010) and the Land Management Plan of the Winkelman NRCD (revised 2010). The majority of the land area potentially affected by the Project within the Redington and Winkelman NRCD boundaries is Arizona State Trust or private land, and a minimal amount of federal land. Although the NRCDs have no direct jurisdiction through land ownership, each offers guidance to private landowners, the ASLD, and federal agencies regarding the use of those lands through their planning and coordination process. The BLM coordinated with the Redington and Winkelman NRCDs during the Draft EIS process, including the review of scientific data, plans, and policies, and participation in seven meetings with the NRCDs (meeting dates are listed in Chapter 5, Section 5.2.4, Table 5-4).

The Redington NRCD's *Long Range Natural Resource Conservation Plan, 2010-2016*, includes management recommendations adopted in response to the NRCD's major concerns and objectives (Redington NRCD 2010). These include measures to control or mitigate the effects of soil erosion and sedimentation (design and construction practices), upland vegetation (grazing practices), water availability/quantity, water quality (best management practices [BMPs]), noxious and invasive plants, wildlife, and fish (discourage habitat fragmentation, education), and conservation planning/education. As stated by the NRCD, "Our present priorities are to improve water quality by reducing soil erosion and sedimentation; improve rangelands by planning and

applying better management practices; and by testing grasses and other planting programs; follow-up with cooperators to insure [sic] the effectiveness of the District program.” The Redington NRCDC also issued the Major Utility/Transportation/Communication Corridors Policy, which states that “(It) is the policy of the (Redington NRCDC) to oppose the construction of any new major energy, transportation, or communication corridors through the Redington NRCDC. In order to minimize impacts of such actions all future construction of such corridors should be along existing corridors of similar capabilities that would only require an upgrade from what currently exists.” The Redington plan also includes the following management directive: “The District will invoke *coordination* with any federal or local agency and or federal/local government body connected with the Federal Land Policy and Management Act in order to coordinate future actions within the district. Those actions and management plans should coordinate and be consistent with this long range plan.”

The Winkelman NRCDC’s *Land Management Plan* includes actions that provide guidance and assist rural property owners, farmers, and ranchers in the “protection, restoration, and conservation of land, water, and soil resources...” (Winkelman NRCDC, revised 2010). The plan further states that “the District will assist private property owners in conserving natural resources, fish and wildlife and their habitat, rivers, and streams and associated riparian habitats, protecting the tax base, protecting public lands, and assisting private property owners to make viable and responsible use of their private lands.” Several coordination actions are listed, including early involvement with agencies regarding issues that (1) pertain to natural resources and fish and wildlife, (2) insist on agency compliance with the NEPA and Data Quality Act, and (3) protect the economic base of the District. The Winkelman NRCDC also issued the Policy 1 – Major Corridors Policy that pertains to the Land Management Plan (Adopted by the Winkelman NRCDC January 6, 2010), and which includes the following statement: “It is the policy of the (Winkelman NRCDC) to oppose the construction of any new major energy, transportation, or communication corridors through or across District lands.”

By definition, construction of a new transmission line project would not be consistent with either the Redington or Winkelman NRCDC policy of opposing construction of any new major energy corridors. However, construction and maintenance of the Project would be implemented to the extent possible to address the objectives, concerns, and recommendations stated in the Redington NRCDC and Winkelman NRCDC plans. BMPs and mitigation measures to control or mitigate the effects of soil erosion and other potential impacts to lands within the districts’ boundaries are included in the Project EIS would be part of the Final POD. The BLM would continue to coordinate with the NRCDCs and the Project owner representatives following the planning process and throughout Project implementation.

Information from the New Mexico and Arizona Departments of Transportation was provided to identify any inconsistencies with plans to construct new highways or improve existing highways within the Project area. These plans were identified in the Cumulative Impacts section of this EIS (Section 4.17.4.). The Project would be consistent with these plans.

Where the Project would cross private and state lands, it would be subject to applicable land use planning regulations, zoning ordinances, or other requirements enforced by the state, county, or local jurisdiction. The Applicant would also need to secure any necessary ministerial permits,

such as dust control, grading, or drainage permits. Legal right-of-entry or access permits also would need to be obtained from private landowners.

## **1.10 DECISIONS TO BE MADE**

In addition to the BLM's action to grant right-of-way on public lands, other federal agencies require separate decisions to grant rights-of-way, easements, or encroachment permits for lands under their jurisdiction. Such federal decisions generally require compliance with the NEPA; in other words, a separate Record of Decision (ROD), Finding of No Significant Impact, or Categorical Exclusion may be required. The agencies may tier to or incorporate by reference this EIS, as appropriate, to fulfill their individual NEPA documentation requirements. State and local agencies also require separate right-of-way applications and permits, as listed in Section 1.12 – Permits, Licenses, and Other Entitlements.

### **1.10.1 BLM**

The purpose of the BLM's action is to respond to SunZia's application for use of BLM-administered lands for a new utility right-of-way. Specifically, the BLM will decide whether to grant, grant with conditions, or deny the application for a new right-of-way. Pursuant to 43 CFR § 2805.10, if the BLM issues a grant, the BLM decision maker may include terms, conditions, and stipulations determined to be in the public interest. This includes modifying the proposed use or changing the route or location of the facilities on public land. If the decision is made to grant the right-of-way, the BLM also will decide which alternative to select, any mitigation requirements, and the terms, conditions, and stipulations of the grant.

The BLM also must decide whether or not to amend any of the existing RMPs to achieve conformity with the land use plan and allow for a grant of a major utility right-of-way for this proposed transmission line. The BLM's decision on the right-of-way grant and any associated RMP amendments would be outlined in a ROD, based on the findings identified in the EIS.

### **1.10.2 Bureau of Reclamation**

The Project may cross federal land administered by the BOR, including land along the Rio Grande in New Mexico and the CAP canal in Arizona.

The BOR, with concurrence from the Middle Rio Grande Conservation District, manages conservation district land, including the Rio Grande Conveyance Channel along the Rio Grande in New Mexico. Most efforts for management include protection of habitat for the Southwestern Willow Flycatcher and the Rio Grande Silvery Minnow. Historically, the Middle Rio Grande region has been altered to meet various needs; namely irrigation for agricultural fields. Current management practices include the restoration and protection of conservation district lands.

The CAP, which is a 336-mile-long system of aqueducts, tunnels, pumping plants, and pipelines that carries water across portions of Arizona, is owned by the BOR. The Central Arizona Water Conservation District is responsible for managing land associated with the CAP.

The Applicant will need to file separate land use applications with the Middle Rio Grande Conservation District and the CAP; upon approval, a Land Use License would be granted for utility right-of-way prior to construction. Land Use Licenses are typically granted for 25 years, with an option to extend for an additional 25-year term. In addition, the CAP or the Middle Rio Grande Conservation District could adopt this EIS in compliance with NEPA and DOI regulations, but would require a separate decision informed by NEPA review, to grant right-of-way crossing land under the jurisdiction of the BOR.

### **1.10.3 Department of the Army**

The WSMR and Fort Bliss include BLM-administered public land that has been withdrawn from the public domain for exclusive military use by the Department of the Army<sup>1</sup>. WSMR and the Doña Ana portion of Fort Bliss were withdrawn by Public Land Order 833 from all forms of appropriation under the public land laws, and were reserved for the use of the Department of the Army for military purposes.

Although the BLM preferred alternative would not require rights-of-way or easements across withdrawn public land on WSMR or Fort Bliss, if any applications for use of real property under Army jurisdiction were to be required, review and concurrence by the Department of the Army would be necessary. The procedure for granting use of real property under the jurisdiction or control of the Department of the Army is governed by Army Regulations 405-80 and 420-1. The WSMR Installation Commander and designated Commanders of the USACE have the exclusive responsibilities and authorities for granting use of such real property.

### **1.10.4 New Mexico Department of Transportation**

New Mexico Department of Transportation (NMDOT) administers all state and interstate highways in New Mexico. An encroachment permit would be required in any location where the Project facilities would cross any NMDOT right-of-way. The Applicant would need to file a New Mexico Public Highway Utility Accommodation Permit Application subject to review and approval by NMDOT, in compliance with federal and state environmental laws and regulations.

### **1.10.5 Arizona Department of Transportation**

ADOT administers all state and interstate highways in Arizona. An encroachment permit would be required in any location where the Project facilities would cross any ADOT right-of-way. The Applicant would need to file a Highway Encroachment Permit Application subject to review and approval by ADOT, in compliance with federal and state environmental laws and regulations.

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<sup>1</sup>Lands within the WSMR and Fort Bliss McGregor Range were withdrawn for military use by Public Land Orders 833, issued May 21, 1952, and PL 106-65 issued October 5, 1999, respectively.

### **1.10.6 Bureau of Indian Affairs**

The Project may cross portions of the San Carlos Irrigation Project canal system, located in the vicinity of the Picacho Reservoir in Pinal County. An encroachment permit would be required by the BIA where transmission lines cross canal rights-of-way. A separate decision by the BIA, informed by NEPA review, would be required to grant right-of-way crossing a San Carlos Irrigation Project canal or other facilities.

### **1.11 BLM PLAN AMENDMENTS**

Management direction of public land and resources is provided in land use plans or RMPs for each BLM field or district office. The BLM must review relevant land use plans and RMPs to determine if a proposed project is in conformance with the management decisions and objectives of those plans. If a proposed project is not in conformance, the BLM can either choose to deny the project, adjust the project to conform to the RMP, or amend the plan to address nonconformance. In the Draft EIS, the BLM identified plan amendments that would be needed for any of the alternatives that are fully analyzed. There are two types of plan amendments identified in this EIS that may be required to conform to RMPs: (1) right-of-way exclusion or avoidance, and (2) visual resource management (VRM) objectives.

Alternatives may cross areas identified as right-of-way exclusion or avoidance areas. According to RMP direction, exclusion areas are closed to all forms of new right-of-way development, and avoidance areas could be used for future rights-of-way only when no feasible alternative route is available. In addition to exclusion and avoidance designations, the placement of new transmission facilities on BLM land within areas of restrictive VRM classifications may not conform to resource management objectives identified in RMPs.

As stated in the NOI to prepare the EIS for the Project (published May 29, 2009), this EIS includes the documentation that serves as the basis for plan amendment decisions. RMPs that may require an amendment due to the proposed action, including alternatives, are:

- New Mexico
  - Socorro RMP, Socorro Field Office (2010)
  - Mimbres RMP, Las Cruces District Office (1993)
- Arizona
  - Final Safford District RMP and EIS, Safford District Office (1991)

Section 202 of the FLPMA states: “The Secretary shall, with public involvement...develop, maintain, and when appropriate, revise land use plans that provide by tracts or areas for the use of the public lands” (43 USC 1712). The regulations for making and modifying land use plans and planning decisions are found in 43 CFR 1600. The proposed plan amendment shall follow the regulations as set forth in 43 CFR 1610, Resource Management Planning. The BLM uses a multiple step process when developing an RMP or RMP amendment, some of which may occur concurrently. Some situations may require the manager to supplement previous work as additional information becomes available. These steps have been fully integrated with the NEPA process and CEQ guidelines. Detailed descriptions of proposed RMP amendments can be found in Chapter 2, Section 2.6. The

public may protest the proposed RMP Amendments during the 30-day protest period following the publication of the Final EIS, and the BLM would resolve protests prior to issuing a ROD.

The BLM planning regulations (43 CFR 1610.5-2) provide for any person who participated in the planning and environmental analysis process and who has an interest that is or may be adversely affected by the planning decision (in this case any of the proposed plan amendments), may protest approval of the planning decision within 30 days from the date that the EPA publishes the NOA of the Final EIS in the *Federal Register*. Protests are filed with the Director of the BLM in Washington, DC, and must meet strict filing requirements, including (1) the name, mailing address, telephone number, and interest of the person filing the protest; (2) a statement of the issue or issues being protested; (3) a statement of the plan amendment being protested; (4) a copy of all documents addressing the issue or issues that were submitted during the EIS process by the protesting party or an indication of the date the issue or issues were discussed for the record; and (5) a concise statement explaining why the State Director's decision is believed to be wrong. Detailed information on filing protests is provided in the Attachment to the “Dear Reader” letter, located at the beginning of this Final EIS. More information on the protest process may be reviewed at the BLM Protest Resolution website: [www.blm.gov/wo/st/en/prog/planning/planning\\_overview/protest\\_resolution.html](http://www.blm.gov/wo/st/en/prog/planning/planning_overview/protest_resolution.html).

## **1.12 PERMITS, LICENSES, AND OTHER ENTITLEMENTS**

Table 1-5 provides a list of major federal, state, and local permits and approvals that could be required for construction and operation of the Project. Note that this list is not all-inclusive.

**Table 1-5. Summary of Potential Major Federal and State Permits or Licenses Required and Other Environmental Review Requirements for Transmission Line Construction and Operation**

<b>Proposal Requiring Action</b>	<b>Agency</b>	<b>Permit, License, Approval, Compliance, or Review</b>	<b>Relevant Laws and Regulations</b>
<b>Federal</b>			
Preconstruction surveys; construction, operation, and abandonment of transmission line on public land	BLM	EIS and ROD (evaluating right-of-way application)	NEPA (42 USC 4321); CEQ (40 CFR 1500-1508)
		Right-of-way grant and temporary use permit	FLPMA (43 USC 1761-1771); 43 CFR 2800
		RMP revision for land use plan conformance	43 CFR 1610.5-3
Construction, operation, and abandonment of transmission line across BOR-administered land	BOR	Easement or right-of-way use authorization	43 USC 387 of the Reclamation Project Act of 1939 and 43 CFR Part 429
Construction, operation, and abandonment of transmission line facilities across BIA-administered canals or other facilities, including San Carlos Irrigation Project	BIA and San Carlos Irrigation and Drainage District	Encroachment Permit within Rights-of-Way for Irrigation Facilities	43 USC 945, Canal Act of 1890
Construction, operation, and abandonment of transmission line across or within highway rights-of-way	Federal Highway Administration (also ADOT and NMDOT)	Permits to cross Federal Aid Highway; 4(f) compliance	Federal-Aid Highway Act (23 USC 101 et seq.); 23 CFR 1.23 and 1.27; 23 CFR 645; 23 CFR 771
Manage effects on species listed or critical habitat designated under the ESA and BLM sensitive species	BLM in consultation with USFWS	Compliance with the ESA	ESA, as amended (16 USC 1531 et seq.); BLM Manual H-6840 (Special-Status Species)
Protect and manage migratory birds	BLM in consultation with USFWS	Compliance	MBTA (16 USC 703-712); EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds
Protect bald and golden eagles	BLM in consultation with USFWS	Compliance	BGEPA of 1972 (16 USC 668)
Disturbance of historic properties	BLM in consultation with SHPOs, Advisory Council on Historic Preservation, tribes, other federal, state, and local agencies, and consulting parties	Compliance with Section 106	NHPA (16 USC 470); 36 CFR 800)

**Table 1-5. Summary of Potential Major Federal and State Permits or Licenses Required and Other Environmental Review Requirements for Transmission Line Construction and Operation**

<b>Proposal Requiring Action</b>	<b>Agency</b>	<b>Permit, License, Approval, Compliance, or Review</b>	<b>Relevant Laws and Regulations</b>
Potential conflicts with freedom to practice traditional tribal religions	Federal lead agency, federal land management agency	Consultation with affected tribes	American Indian Religious Freedom Act (42 USC 1996), EO 13007, Religious Freedom Restoration Act of 1993 (42 USC 2000bb et seq.) Secretarial Order 3206
Disturbance of graves, associated funerary objects, sacred objects, and items of cultural patrimony	Federal land management agency	Consultation with affected tribes regarding treatment of remains and objects	NAGPRA (25 USC 3001)
Investigation of cultural and paleontological resources	Affected land management agency	Permit for study of historical, archaeological, and paleontological resources	American Antiquities Act of 1906 (16 USC 432-433)
Investigation of cultural resources	Affected land management agency	Permits to excavate and remove archaeological resources on federal land; tribes with interests in resources must be consulted prior to issuance of permits	ARPA of 1979 (16 USC 470aa to 470ee); 43 CFR 7
Ground disturbance on federal land or federal aid project	BLM	Compliance with BLM mitigation and planning standards for paleontological resources on public land	FLPMA (43 USC 1701-1771); Antiquities Act of 1906 (16 USC 431-433)
Collection of paleontological resources from federal land	BLM	Permit to collect paleontological resources from federal land	Omnibus Public Lands Management Act – Paleontological Resources Preservation. PL 111-11, Title VI, Subtitle D, Sections 6301-6312, 123 Stat. 1172, 16 USC 470aaa.
Protection of segments, sites, and features related to national trails	Affected land management agency	National Trails System Act compliance	National Trails System Act (PL 90-543) (16 USC 1241 to 1249)
Construction sites with greater than 5 acres of land disturbed	EPA	Section 402 National Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Construction Activities	CWA (33 USC 1342)
Potential pollutant discharge during construction and operation	EPA	Spill Prevention Control and Countermeasure Plan	Oil Pollution Act of 1990 (33 USC 2701 et seq.); 40 CFR 112
Construction across a Superfund site	EPA	Agreement or order of consent with EPA	CERCLA (42 USC 9601-9675)

**Table 1-5. Summary of Potential Major Federal and State Permits or Licenses Required and Other Environmental Review Requirements for Transmission Line Construction and Operation**

<b>Proposal Requiring Action</b>	<b>Agency</b>	<b>Permit, License, Approval, Compliance, or Review</b>	<b>Relevant Laws and Regulations</b>
Construction across water resources	USACE	Section 10 and/or Section 404 permits (see below)	33 USC 403, 1344(a); 33 CFR 320, 322, 323, 325
Placement of structures and construction work in navigable waters of the U.S.	USACE	Section 10 permit for construction of obstructions to navigable capacity of navigable waters	Rivers and Harbors Act of 1899 (33 USC 403)
Potential discharge into waters of the U.S. (including wetlands and washes)	USACE	Section 404 permit for discharge of dredged or fill material to waters of the U.S.	CWA (33 USC 1344)
Crossing 100-year floodplain, streams, and rivers	USACE	Floodplain use permit	40 USC 961
Construction, operation, and abandonment of transmission line across DOD-administered land	DOD – Department of the Army	Easement or right-of-way use authorization	10 USC § 2668 – Easements for rights-of-way Army Regulations 405-80 and 420-1
Construction in or modification of floodplains	Federal action agencies	Compliance; consider alternatives to avoid adverse effects and incompatible development in floodplains	42 USC 4321 EO 11988 Floodplains
Construction in or modification of wetlands	Federal action agencies	Compliance	42 USC 4321 EO 11990 Wetlands
Location of structures in regards to airport facilities and airspace	FAA	A "No-hazard Declaration" required if structure is more than 200 feet in height	FAA Act of 1958 (PL 85-726) (14 CFR 77)
		Section 1101 Air Space Permit for air space construction clearance	FAA Act of 1958 (PL 85-726) (14 CFR 77)
Sales for resale and transmission services	FERC	Federal Power Act compliance by power seller	Federal Power Act (16 USC 792)
Construction of transmission lines either crossing or in close proximity to pipelines.	USDOT	Pipeline safety regulations	49 USC Subtitle VIII Pipelines Chapter 601 Safety
<b>State of Arizona</b>			
Construction of a transmission line with a voltage of 115 kV or greater	ACC	Certificate of Environmental Compatibility	ARS 40-360.03; AAC R14-3, Corporation Commission Rules of Practice and Procedure

**Table 1-5. Summary of Potential Major Federal and State Permits or Licenses Required and Other Environmental Review Requirements for Transmission Line Construction and Operation**

<b>Proposal Requiring Action</b>	<b>Agency</b>	<b>Permit, License, Approval, Compliance, or Review</b>	<b>Relevant Laws and Regulations</b>
Stormwater management from potential discharges associated with industrial activity or construction of sites greater than 5 acres (cumulative)	ADEQ	Arizona Pollutant Discharge Elimination System permit	ARS 49-255; AAC R18-9-1, 2, AAC R18-11-1
Construction across water resources	ADEQ	State Water Quality Certification (state review required for all Federal Section 404 permits)	CWA (33 CFR Parts 320, 322, 323, 325)
Obtaining federal National Pollutant Discharge Elimination System Permit	ADEQ	Consistency Review Form to ensure that a proposed facility or use will be consistent with the existing Certified Regional Water Quality Management Plan	CWA (Section 303, et al.), Federal Water Pollution Control Act Section 208
Fugitive dust as a result of Project construction	ADEQ	Compliance with dust control measures and standards	AAC: R18-2-604, R18-2-605, R18-2-606, R18-2-607, R18-2-612
Construction, operation, and abandonment of transmission lines across or within state highway right-of-way	ADOT	Crossing or encroachment permit, permit for use of highway right-of-way	ARS 28-7053, AAC R17-3-501 through 509
Survey and construction of a transmission line within rights-of-way on State Trust Land	ASLD	Right-of-way/Right-of-entry permit	ARS 37-461
Loss of special-status plant species	Arizona Department of Agriculture	Permit to Remove Plants	Native Plant Law (ARS 3-901 through 916)
Disturbance to or loss of special-status animal species habitat	AZGFD	Coordination with USFWS/BLM/USACE	U.S. Fish and Wildlife Coordination Act
Potential disturbance to cultural resources on State Land	Arizona State Museum	Permit to investigate	ARS 41-841 through 847
Potential disturbance to cultural resources on State Land	SHPO	Review and approval of use of any State Trust Land	ARS 41-861 through 864
Potential disturbance to human remains or funerary objects	Arizona State Museum	Grant Permission to Disturb	ARS 41-865

**Table 1-5. Summary of Potential Major Federal and State Permits or Licenses Required and Other Environmental Review Requirements for Transmission Line Construction and Operation**

<b>Proposal Requiring Action</b>	<b>Agency</b>	<b>Permit, License, Approval, Compliance, or Review</b>	<b>Relevant Laws and Regulations</b>
<b>State of New Mexico</b>			
Construction of a transmission line with a voltage of 230 kV or greater	New Mexico Public Regulation Commission	Application for approval of location of transmission line	NMSA 62-9-3; 17.9.592 NMAC
Construction of a transmission line with a voltage of 230 kV or greater	New Mexico Public Regulation Commission	Certificate of Public Convenience and Necessity	NMSA 62-9-1; 17.1.2.9 NMAC
Upgrading gravel access roads and any additional highway entry/exit points.	NMDOT	Access Permit, including stipulations for any safety enhancements necessary to the highway	18.31.6 NMAC
Installation of transmission line within the right-of-way of state-managed roadways	NMDOT	New Mexico Public Highway Utility Accommodation Permit	17.4.2 NMAC
Protect water quality standards during construction and operation activities	NMED, Water Quality Bureau	National Pollutant Discharge Elimination System Construction Stormwater Permit and Stormwater Pollution Prevention Plan	NMSA 74-6; 20.6 NMAC
Management of hazardous waste onsite during construction/operation	NMED/HWB	Hazardous Waste Permit	NMSA 74-4; 20.4 NMAC
Storage and use of hazardous chemicals onsite during construction/operation	NMED/HWB	EPA Waste Activity EPA ID Number	NMSA 4-4E-1
Taking or transplanting of state endangered plant species (during construction, right-of-way clearing, etc.)	New Mexico Dept. of Energy, Minerals, and Natural Resources, Forestry Division	Collection permit	NMSA 75-6-1; 19.21.2 NMAC
Manage effects to threatened and endangered species	NMDGF	Survey permit and general consultation	NMSA 17-2-42; NMDGF Habitat Handbook
Construction of a transmission line on New Mexico State Lands	NMSLO	Right-of-way or easement on State Land	NMSA 19-7-57

**Table 1-5. Summary of Potential Major Federal and State Permits or Licenses Required and Other Environmental Review Requirements for Transmission Line Construction and Operation**

<b>Proposal Requiring Action</b>	<b>Agency</b>	<b>Permit, License, Approval, Compliance, or Review</b>	<b>Relevant Laws and Regulations</b>
Identification of, and potential disturbance to, cultural resources in Project area	New Mexico State Historic Preservation Division	Cultural Survey Permit; coordination with state SHPO	NMSA 18-6; 4.108, 4.10.15 NMAC
<b>Local*</b>			
Potential encroachment onto county or city rights-of-way	Public Works, Development Services	Right-of-way use permit, encroachment permit	County/local ordinance or municipal code
Construction activities, potential for fugitive dust from construction	Public Works, Building	Grading and excavation permit, dust control permit	County/local ordinance or municipal code
Amending zoning or land use to allow use (construction and operation of transmission line and substations)	Planning and Zoning, Community Development	Special use permit, conditional use permit	County/local ordinance or municipal code
* Local permits are examples only of permits that could be anticipated at the local (county and city) level, as local permitting agencies often defer to state authorities for projects of this scale.			
AAC	Arizona Administrative Code	FAA	Federal Aviation Administration
ACC	Arizona Corporation Commission	HWB	Hazardous Waste Bureau
ADEQ	Arizona Department of Environmental Quality	MBTA	Migratory Bird Treaty Act
ARPA	Archaeological Resources Protection Act	NAGPRA	Native American Graves Protection and Repatriation Act of 1990
ARS	Arizona Revised Statute	NMAC	New Mexico Administrative Code
BGEPA	Bald and Gold Eagle Protection Act	NMDGF	New Mexico Department of Game and Fish
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NMED	New Mexico Environment Department
CWA	Clean Water Act	NMSA	New Mexico Statutes Annotated
EPA	Environmental Protection Agency	PL	Public Law
et seq.	and the following	SHPO	State Historic Preservation Office